DOCUMENT RESUME

ED 321 972 SE 051 452

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TITLE Resources for Educational Materials Related to Science Education, K-12. ERIC/SMEAC Science Education Digest No. 3.
INSTITUTION ERIC Clearinghouse for Science, Mathematics, and Environmental Education, Columbus, Ohio.
SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.
REPORT NO EDO-SE-90-15
PUB DATE 89
CONTRACT RI88062006
NOTE 4p.
AVAILABLE FROM ERIC/SMEAC, The Ohio State University, 1200 Chambers Road, Room 310, Columbus, OH 43212 ($1.00 single copy; ordered in a set of four for the year and content area, $3.00).
PUB TYPE Information Analyses - ERIC Information Analysis Products (071)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Audiovisual Aids; Computer Software; Educational Trends; *Elementary School Science; Elementary Secondary Education; Instructional Materials; *Resource Materials; Science Curriculum; *Science Education; *Science Materials; *Secondary School Science
IDENTIFIERS ERIC Digests

ABSTRACT

This digest identifies selected sources of materials for science education. Included are: the Educational Resources Information Center; the American Association for the Advancement of Science; the National Science Resources Center; the National Science Teachers Association; and publications produced by the California State Department of Education. Also identified are references and reviews of print, audiovisual, and computer software materials; PSI-NET; sources of research and report information; local and state sources; and professional associations. Five sources of science education information and nine references are listed. (CW)

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RESOURCES FOR EDUCATIONAL MATERIALS RELATED TO SCIENCE EDUCATION K-12

by

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ERIC/SMEAC Science Education Digest No. 3, 1989

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RESOURCES FOR EDUCATIONAL MATERIALS RELATED TO SCIENCE EDUCATION, K-12

Are you looking for sources of materials to use to supplement your science education curriculum? This digest identifies selected sources of materials for science education.

What are some sources for locating a variety of K-12 science education materials?

Educational Resources Information Center (ERIC)

The ERIC system includes 16 clearinghouses, ACCESS ERIC, the ERIC Document Reproduction Service (EDRS), the ERIC Facility, nearly 900 sites with ERIC collections, ORYX Press and vendors who make ERIC available for online or CD-ROM searching.

ERIC system products include (1) *Resources in Education* (*RIE*), a publication containing abstracts of selected documents including science education curriculum guides, activity manuals, and teacher guides; and (2) *Current Index to Journals in Education* (*CIJE*), a monthly publication containing annotations of selected education journal articles including science education items.

Microfiche are available to view for most items abstracted in *Resources in Education* at many libraries. Microfiche and paper copy of most items are available for purchase from EDRS.

Each clearinghouse produces digests and other publications related to its scope areas and serves as an information source for its scope area. A list of science education publications produced by ERIC/SMEAC can be requested by mail or phone.

ACCESS ERIC was established to help users obtain general information about ERIC. For information about sites with ERIC collections, how to search ERIC, or other general ERIC questions you can write ACCESS ERIC or call toll free 1-800-USE-ERIC.

American Association for the Advancement of Science (AAAS)

The American Association for the Advancement of Science (AAAS) produces an annual publication, *The AAAS Science Education Directory, Education in the Sciences*. The directory includes addresses and phone numbers for a variety of resources including associations, scientific academies, educational research centers, educational laboratories, state and federal government agencies, museums and science-technology centers, curriculum resources, programs for students, programs and workshops for teachers, journals, resources for minorities, and textbooks.

National Science Resources Center

The National Science Resources Center (NSRC) has published *Science for Children*, a compilation of resources for teachers. *Science for Children* provides a guide to assist people working to improve elementary science education. The materials described in the publication were selected for inclusion because they provide excellent support for carrying out effective hands-on, inquiry-based elementary school science programs.

The NSRC guide includes sections on curriculum materials, supplementary resources, and sources of information and assistance. The curriculum section has bibliographic information and annotations on materials related to life science, health and human biology, earth science, physical science, and multidisciplinary and applied science.

The section on supplementary resources contains information about science activity books for children, directories for resources, and magazines for children and teachers.

The third section, Sources of Information and Assistance, lists scientific and educational organizations as well as materials suppliers and publishers.

National Science Teachers Association

The National Science Teacher's Association produces an annual publication, *Education Suppliers*. The 1990 edition contains sections with addresses and descriptions of materials available from (1) equipment suppliers, (2) computer software suppliers, (3) media producers, (4) textbook publishers, (5) program and resource material publishers, and (6) tradebook publishers. This is the most extensive directory of its type and contains materials for all science fields K-12.

California State Department of Education

The California State Department of Education published the *Enrichment Opportunities Guide: A Resource for Math and Science*. This guide identifies and describes a variety of instructional materials for science and includes an excellent list of national student contests, programs, and awards.

What are some references to reviews and other sources of print materials?

The previous sources contain references to titles and commercial and non-commercial sources of print materials. Other publications contain descriptions and reviews of materials.

Booklist, published by the American Library Association, contains descriptions and reviews of many science publications including reference books, books for supplementing the curriculum, and books for recreational reading. It is available at many college and public libraries.

Books in Print, published by Bowker, is a compilation of reviews on books and also contains many references related to science education.

Each year a list of *The Best Science Books and A/V Materials for Children* is published by the National Science Teachers Association and AAAS.

Information Sources in Science and Technology (1988) contains references to many sources of materials primarily of use to teachers at the secondary and post-secondary levels of education. Sections are included for most sciences and engineering. Included are references to literature guides, handbooks, directories, dictionaries, catalogs, field guides, and encyclopedias.

El-Hi Textbooks and Serials in Print: 1990 provides information on a variety of curriculum and instructional resources. Included is information on textbooks, workbooks,

graphic aids, maps, A/V materials, reference books, and teaching aids.

What are some selected references to reviews and other sources of audiovisual and computer software materials?

The AudioVideo Review Digest: A Guide to Reviews of Audio and Video Materials Appearing in General and Specialized Periodicals indexes and abstracts reviews from about 600 periodicals. It is published three times a year with an annual cumulation.

The Education Products Information Exchange (EPIE) publishes *T.E.S.S.: The Educational Software Selector*. This guide provides a comprehensive listing of courseware with evaluations obtained from a variety of review sources.

The Northwest Regional Education Laboratory produces a computer software database entitled *Resources in Computer Education (RICE)*. RICE is available on floppy disc or in print form and includes descriptions and evaluations of materials.

Bowker has produced *ONLY THE BEST, The Annual Guide to Highest Rated Educational Software Preschool - Grade 12 (1990) and ONLY THE BEST, The Cumulative Guide to Highest-Rated Educational Software, 1985-1989 Preschool - Grade 12*. Bowker also publishes *Software for Schools* and *The Software Encyclopedia*.

The Agency for Instruction Technology has produced several sets of materials for science courses. Items currently available are listed in the AIT *Catalog of Instructional Materials (1990)*.

What is PSI-NET?

There are several online computer services that contain information of interest to science teachers. Online services such as Dialog and BRS contain databases, including ERIC, of interest to teachers and others. PSI-NET, however, is designed solely to facilitate the exchange of information and ideas concerning science and science education.

PSI-NET, established by the Council of State Science Supervisors, lists a variety of materials of interest to science teachers. New items are continually being added.

What is a good source of research and report information on science and technology?

The single most comprehensive source of information is the National Technical Information Service (NTIS). NTIS abstracts and indexes many types of technical publications including research studies, reports, and bibliographies. Copies of most materials can be obtained in microfiche or paper copy. NTIS can be searched online through commercial vendors such as Dialog and BRS. NTIS also produces abstract newsletters on a variety of science and technology topics. While most of the publications are for the postsecondary level, many are of use to teachers developing curricula and instructional materials and for secondary school students doing research projects.

What local and state sources can be of assistance?

Many excellent resources are available from county or State Departments of Education, State Energy Offices, and others. Several states such as New York have produced an extensive amount of science education materials.

Local sources that should be contacted include: science and technology centers, museums, nature centers, zoos, parks, business and industry, and colleges and universities.

What professional associations have special materials and services for K-12 teachers?

In addition to AAAS and NSTA identified earlier in this digest, there are several major associations that focus on specific science disciplines and others that focus on areas such as science/technology/society and others. The American Chemical Society, the American Association of Physics Teachers, the National Association of Biology Teachers, the National Association of Geology Teachers, the Council for Elementary Science, International, and the National Association for Science/Technology/Society are among the major groups focusing on K-12 teachers. The addresses for all these associations are listed in the *AAAS Science Education Directory*.

Selected Sources for Science Education Information

ACCESS ERIC
Aspen Systems Corporation
1600 Research Blvd.
Rockville, MD 20850
(800) 873-3742

Agency for Instructional Technology
Box A
Bloomington, IN 47402-0120
800-457-4509

American Association for the Advancement of Science
1333 "H" St, NW
Washington, DC 20005
(202) 326-6400

National Academy Press
2101 Constitution Ave., NW
Washington, DC 20418
(202) 334-3313

R. R. Bowker
245 West 17th St.
New York, NY 10011
(212) 645-9700

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This digest was funded by the Office of Educational Research and Improvement, U.S. Department of Education under contract no. RI-88062006. Opinions expressed in this digest do not necessarily reflect the positions or policies of OERI or the Department of Education.